PATENT CLAIMS

1.   A method for setting up a digital synchronous cross-connect connection between data transmission units (2, 2′, 2′′) that are connected to interfaces of user devices (3), characterized in that an additive neutral element is allocated to asynchronous interfaces, and in that the data signals that have been received in a data transmission unit (2, 2′, 2′′) via various data channels are added together.

2.   The method as claimed in claim 1, characterized in that the neutral elements allocated to asynchronous interfaces and neutral elements of synchronous interfaces are allocated null vectors which all have the same length.

3.   The method as claimed in claim 1, characterized in that the addition is limited to a maximum value.

4.   The method as claimed in claim 1, characterized in that the neutral element is allocated to an inactive state of the user device (3).

5.   The method as claimed in claim 1, characterized in that after data has been sent and until new data is sent, the data transmission unit (2, 2′, 2′′) transmits the additive neutral element.

6.   A data transmission unit for setting up a digital synchronous cross-connect connection between user devices (3) that can be attached to it via interfaces and a multichannel network (1), characterized in that the data transmission unit (2, 2′, 2′′) has an allocation means (22, 23, 24, 25, 26), for allocating an additive neutral element to interfaces of the user devices (3), and at least one addition means for adding the data signals received via various channels of the communication network (1).

7.   The data transmission unit as claimed in claim 6, characterized in that null vectors that all have the same length are allocated to all additive neutral elements.

8.   The data transmission unit as claimed in claim 6, characterized in that the addition means has means

for limiting the added data signals.

9.   The data transmission unit as claimed in claim 6, characterized in that the addition circuit has a 256 modulo function.

10.   The data transmission unit as claimed in claim 6, characterized in that the addition circuit has an A law or µ law circuit.

11.   The data transmission unit as claimed in claim 6, characterized in that the addition means and allocation means are permanently active.